

XXVIII.—*Descriptions of new Species of Lepidoptera from the Solomon Islands, collected by C. M. Woodford, Esq.*
By A. G. BUTLER, F.L.S., F.Z.S., &c.

GEOMETRITES.

Euschemidæ.

1. *Euschema pilosa*, sp. n.*

Nearest to *E. tyrianthina* in pattern, but with the orange and grey body of *E. fenestrata* and allies: wings deep purple, banded and spotted with black; the veins pale: primaries of male crossed by two paler purplish bands, enclosing an abbreviated streak of the same colour; these bands are formed much as in *E. cyane* of Cramer, but the outer band is further from the margin: secondaries pale towards the base and with a narrow paler oblique band, followed by a small spot, before the middle; in the female all these markings are white instead of purplish; an irregular series of submarginal orange crescents somewhat as in *E. tyrianthina* or *E. cyane*, but more or less obliterated and further from the margin; as in the allied species, these crescents are broader in the female than in the male. Front of thorax purplish black; the head (excepting an orange semicircle round each eye) and antennæ dark brown; in the female, however, the face is whitish and the vertex of head and the antennæ are pale brown; the collar and tegulæ are sprinkled with brown hairs, and the thorax is whitly brown; the back part of the thorax in the male is darker and clothed with brown and grey hair: abdomen pale brown, barred with reddish, with the sides and anal extremity woolly and bright dark orange in the male; the dorsal surface of the last two segments often ornamented with large blue-black spots; in the female the sides and anal extremity are smooth and bright ochreous. On the under surface the markings are broader and better defined and the veins whiter; pectus of male blackish, excepting a few orange hair-scales at the sides; legs purplish, slightly sprinkled with white and ochreous scales; venter woolly, deep bright orange; pectus and legs of female dust-grey; venter of the same colour, but with yellow edges to the segments and with orange anus. Expanse of wings 92 millim.

Five males and one female. Shortland Island.

* Belongs to the section to which the name *Heleona* has been given.

2. *Ctimene excellens*, sp. n.

Apparently intermediate between *C. xanthomelas* and *C. aurinata*: primaries with the basal two fifths, excepting the extreme base and costa, which are black, bright cadmium-yellow, separated by a broad, oblique, black belt from an irregular, cadmium-yellow, discal belt (shaped like an eagle's head, with the beak pointing downwards); outer border black: secondaries bright cadmium-yellow, with rather broad, black, external border, widest towards costa; the costa grey from apex to middle, but divided by a yellow spot at the margin of the outer border and united to a black subcostal spot in the cell. Body black; an ochreous stripe commencing on each side of the collar, encircling the neck below and continued down the anterior coxæ; the palpi of the same colour; the under surface of the anterior tibiæ pale buff. Expanse of wings 36 millim.

Ulana and Tyoh, Malayta.

There can be little doubt that this and the species referred to above are strictly congeneric with Boisduval's type of the genus, but they do not correspond with the characters laid down by Mr. Meyrick for the recognition of the genus. This, then, is the proper place to express my strong disapprobation of the plan adopted by that author when characterizing genera of the Australian region, viz. to identify a similarly shaped or coloured Australian species with description or figure and to characterize the genus from it instead of from the type. In a case like the present it is probable that the typical species could not be obtained; but in the case of *Spilosoma* and many other genera incorrectly characterized by Mr. Meyrick from Australian species no such excuse exists; I hold that in all such cases considerable hindrance, instead of assistance, is offered to the advancement of knowledge.

Uraniidæ.

3. *Lyssidia mutata*, sp. n.

Allied to *L. patroclus* and *L. Goldiei*; colours the same; wings crossed by a rather narrow white band, slightly wider than the pale brownish band of *L. patroclus*, but placed further from the outer margin, and the band of primaries decidedly more oblique than in *L. patroclus*; primaries of male above slightly purplish; other characters variable, as in the allied species. Expanse of wings, ♂ 149 millim., ♀ 144.

Alu.

Enochromiidae.4. *Decetia insignis*, sp. n.

♂. Nearest to *D. subobscurata* (*Gynopteryx subobscurata*, Walk.): primaries above sandy ochreous, sparsely speckled with dark grey, most densely at apex; a spot of dark grey at the end of the cell and three small, ill-defined, greyish patches in the form of a triangle, one on apical fifth of costa, a second near the middle of the outer margin, a third near the middle of the first median interspace; a slender, oblique, brownish line from just before the middle of the inner margin to the apex; a submarginal series of five grey-speckled white dots towards apex; fringe brown: secondaries with greyish-white costal area, mottled with grey towards apex; remainder of wing ochraceous at base, this colour being limited at basal fourth by a short brown line, thence to middle greyish flesh-coloured; discal third ochraceous, partly interrupted and bounded externally by an irregular streak of five very unequal pitch-brown spots, the second of which is large, quadrate, and placed obliquely; external fourth greyish flesh-coloured, with deep ochreous outer margin; fringe brown. Vertex of head and stem of antennæ whitish, pectinations brown; thorax flesh-tinted; abdomen grey-brown. Under surface flesh-pink, densely mottled with minute grey striations; venter whitish. Expanse of wings 47 millim.

Alu.

In the same collection is a second *Decetia*, from Shortland Island, which agrees so closely with *D. numicusaria* that I have no doubt of its being the male. The locality "S. America" was on the specimen described by Walker; but even he was aware that this was an error. No locality was given in the register.

Boarmiidae.5. *Ophthalmodes parva*, sp. n.

♀. General appearance above of *O. herbidaria*; white, irrorated and striped with olive-green as follows:—two indistinct subparallel lines across the basal half; an arched band enclosing a regular zigzag white line beyond the middle, and a marginal band, enclosing along its inner edge a series of whitish lunules; three series of black dots, the first along the inner edge of the postmedian white stripe, the second on the inner edge of the submarginal lunules, the third marginal: primaries also with a black dot near the base of the median

vein, three on the subbasal olivaceous line (the first being costal), and three, of which the middle one is large and represents the reniform spot, on the second olivaceous line: secondaries with a dark olivaceous white-pupilled spot at the end of the cell. Under surface smoky grey; all the wings with a large black spot at the end of the discoidal cell, a very indistinct angular dusky line just beyond the middle, a broad dusky area occupying the external third, a spot on outer margin, and an irregular external border (with which this spot is confluent) snow-white: primaries with a large, diffused, subapical, black patch: secondaries with a smaller and less distinctly black subapical nebula. Expanse of wings 49 millim.

Ulaua.

This is the smallest species known to me.

Geometridæ.

6. *Agathia pisina*, sp. n.

Nearest to *A. hemithearia*; wings bright pea-green, banded with reddish coffee-brown and plum-colour, these bands traversed by dentate-sinuate, silvery lines and interrupted by spots nearly as in that species; it differs as follows:—all the bands much redder, the external belt or border of primaries narrowed behind almost as much as in *A. discriminata*; the subapical green patch abruptly narrowed at the back of the first spot of the subapical series and extended outwards to the margin; the third spot large, and all three confluent, as in *A. discriminata*; fourth spot silvery, large, but not confluent with the others; fifth and sixth spots small, green, placed obliquely; a bisinuate inner stripe, three marginal spots, and the veins at apex distinctly silvery; costal border much broader than in either of the above-mentioned species and silvery; the band crossing the wing before the middle also broader and much more angular; external area of secondaries formed and ornamented as in *A. discriminata*, but nearly as broad (excepting towards anal angle) as in *A. hemithearia*; front of head whitish, with a reddish-brown anterior transverse band and plum-coloured lines round the bases of the antennæ, the latter ferruginous internally, whitish externally; vertex of head and thorax pea-green; tegulæ with reddish-brown margins and long brownish terminal hairs; abdomen reddish brown, with white sides and pale dorsal spots, two of which (on the basal half) are pea-green.

Under surface like *A. discriminata*, but with broader plum-coloured bands. Expanse of wings 44 millim.

Alu.

There is so much general similarity between the species of this beautiful group that an ordinary description would probably be insufficient to identify it by; I have therefore preferred to give a comparative description, showing in what points it differs from two well-known species.

Palyadidæ.

URANODOXA, gen. nov.

Allied to *Ophthalmophora*; with the same arrangement of nervures, but the wings shorter and broader; the body much more robust, with coarsely pectinated and extremely long antennæ reaching to about the fifth sixth of the costal margin of primaries; the body scarcely longer than the antennæ, with wide short head; palpi broad and compressed, with well-exposed terminal joint; legs much stouter than in *Ophthalmophora*, the last pair armed with four strong spurs in pairs.

7. *Uranodoxa longicornis*, sp. n.

Primaries above with the basal three fourths flesh-tinted, transversely streaked with plum-colour in front, greyish brown behind, the whole surface transversely striated with black and crossed by three dull plum-coloured bands, of which the outermost is very broad towards costa and gradually tapers to inner margin: secondaries with the basal two thirds golden ferruginous, striated with black, and with a black discocellular spot: all the wings with the external border bright orange, with spots at regular intervals formed by pyramidal groups of black striæ; this border is bounded internally by a brilliant scarlet band, followed by an almost confluent series of grey-edged metallic silver spots; along the outer margin is a bronze or tarnished silvery stripe, followed by grey-tipped plum-coloured fringes; antennæ brown, with a slender, white, lateral line: body brown, washed with purplish plum-colour; abdomen with whitish margins to the segments, ochreous sides, and white tip to the anal tuft. Under surface deep ochreous: primaries crossed from just before the middle by three blackish lines, the central one wide and limiting a broad, grey-brown, external area, which is nevertheless interrupted towards inner margin by two unequal spots of the ground-colour: secondaries with a squamose blackish costal spot and a dot at the end of the cell; an

external brown area, only half as wide as in the primaries, interrupted by one large spot close to abdominal margin and bounded internally by a wide blackish stripe; anal tuft of abdomen coloured much as above. Expanse of wings 35 millim.

Alu.

This superbly coloured moth must either stand between the genera *Palyas* and *Dissophthalmus*, or between the latter and *Ophthalmophora*.

Ephyridæ.

8. *Anisodes pauper*, sp. n.

Allied to *A. absconditaria*, pale pink; wings above crossed obliquely by greyish stripes and sparsely irrorated with blackish scales: primaries crossed in the middle by two divergent stripes, the inner one arched, the outer acutely angulated towards each extremity so as to form a long Z; two angulated and zigzag submarginal lines, the inner one regularly dotted with black; a marginal series of black dots, one or two towards the base and one at the end of the cell: secondaries crossed near the base by an abbreviated line on which are two black dots; a central diffused stripe and two narrower discal stripes parallel to outer margin, the inner of these stripes regularly edged externally with black points; a marginal series of black dots; abdomen rather more pink than the thorax. Under surface sericeous creamy white; wings with small dusky discocellular spots; a discal zigzag series of black dots, and a slender zigzag brown marginal line; anterior tibiæ brown above. Expanse of wings 38 millim.

Malayta.

This is about the most indistinctly marked species in the genus, the stripes being about as much pronounced as in the British *Idea strigilata*, rather less than more so.

Idæidæ.

9. *Ochodontia subochrea*, sp. n.

♂. Above pale sericeous golden buff; primaries indistinctly speckled with grey on the costa; a small sandy testaceous spot at the end of the cell and a straight oblique stripe from apical seventh of costal to external third of inner margin; an imperfect dark brown edging to the apical sinus: secondaries with a small silvery white spot at the end of the cell and a straight oblique sandy testaceous stripe across the middle: head dark brown; pectinations of antennæ grey;

thorax greyish, especially behind; abdomen slightly brownish behind. Under surface clear ochreous; wings sparsely irrorated with minute slaty purple striations; primaries with an abbreviated purple transverse streak beyond the middle of internal area, inner border white; all the wings with a submarginal purple line; hind tibiæ with reddish fringes. Expanse of wings 35 millim.

Alu.

Nearest to *O. aventiaria*.

10. *Zanclopteryx aetherialis*, sp. n.

Nearest to *Z. fragilis*: pearly white, wings crossed towards outer margin by an irregular series of brown dots and dashes, as in *Z. guttilinea* of Java; a squamose lunulated brown line and a marginal series of black dots: primaries with the costal border more or less striated with brown; a black spot at the end of the cell: secondaries with a brown spot at the end of the cell. Wings below with only the discocellular markings. Expanse of wings 19–20 millim.

Alu, Shortland Island.

Some examples are more strongly marked than others.

Microniidæ.

11. *Strophidia costalis*, sp. n.

Allied to *S. bifasciata*, but differing in the white costal border of the primaries and the broad white external border of the secondaries; above snow-white: primaries with a black-brown subcostal band continued as a black-brown border round the outer margin; two well-separated pale brown bands across the middle of the wing from the subcostal band to the inner margin: secondaries crossed from just before the middle of costa to the anal angle by a pale brown band, which unites upon the abdominal margin with an angular darker brown discal band, parallel to outer margin; three increasing black oval spots from anal angle to base of caudal projection, the fringe of this part of the wing also black. Head, excepting the face and the lower surface of the palpi, black; remainder of body white; anterior tibiæ and tarsi blackish above. Primaries below white; a pale brown abbreviated stripe just beyond the cell and a spot in the cell; apex and outer margin darker brown; fringe blackish: secondaries nearly as above, but the outer brown band widened and dentate-sinuate towards anal angle, so as to completely obliterate the black spots. Expanse of wings 57–59 millim.

Three examples. Shortland Island.

The following form I name with some hesitation; for although Mr. Meyrick, to whom I showed it, expressed his opinion that it was distinct from *S. urapterina*, I still feel some doubt about it*.

12. *Strophidia hyemalis*, sp. n.

♂ ♀. Quite like a small edition of *S. urapterina*, but with the brown bands slightly paler, more oblique, narrower, and of more equal width; no short brown stripe at the end of the cell of primaries. Expanse of wings 44 millim.

Two examples. Alu, Shortland Island.

S. urapterina from the same island measures 58 millim. in expanse of wing, and differs in no respect from the typical New-Ireland form.

Larentiidæ.

13. *Remodes volcanica*, sp. n.

Primaries dark greenish sulphur or mustard-yellow, crossed by five bands, the first two indistinct, formed of about three olivaceous stripes which converge and unite in a brown spot on the submedian vein; third band wider, more distinct, formed of three wavy parallel stripes marked with brown beyond the cells and towards inner margin; fourth band formed of two similarly-marked stripes; fifth band or external border olivaceous, with black-spotted zigzag inner edge; outer margin with six black spots placed alternately with the submarginal series; fringe pale yellow, tipped with olivaceous: secondaries sericeous greyish brown; fringe slightly yellowish at base: thorax greenish yellow; antennæ brownish; abdomen whity brown, with greenish dorsal region. Under surface pale sericeous brownish grey; pectus, femora, and tibiæ yellow, tarsi dark brown. Expanse of wings 42 millim.

Shortland Island.

MISCELLANEOUS.

On the Structure of the Branchia of the Prosobranchiate Gasteropods.
By M. FÉLIX BERNARD.

My investigations have been directed to numerous genera belonging to various families of Scutibranchiata, Tænioglossa, Rhachiglossa, and Toxiglossa. They have enabled me to study in detail the

* I quote my friend Meyrick's authority here because in the matter of species he is rather inclined to associate allied forms under one specific name, sometimes to an extent that is perfectly astounding.